

REMARKS

Claims 1-6, 8-10, 12-13, and 15 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

DRAWINGS

The drawings stand objected to under 37 CFR 1.83(a) as not showing every feature of the invention specified in the claims. Specifically, the Examiner states the “drive setup circuit” is not shown. The objection is respectfully traversed.

Figures 2 and 7 show a control circuit 112 and 112a. As supported by the specification, the control circuit functions as “drive setup means.” *See, e.g.*, para. [0035] and [0040]. In this way, every feature specified in the claims is appropriately shown in the drawings. Reconsideration and withdrawal of the objection are respectfully requested.

CLAIM OBJECTIONS

Claims 5, 6, 12, and 13 stand objected to because of informalities. The objections are respectfully traversed.

As to claims 5 and 12, the Examiner objects to the claims stating that they should have been written as “A display drive device comprising an electro-optical device.” Applicants respectfully submit that the claims, which recite “An electro-optical device comprising the display drive device according to ...”, are proper as originally submitted. As supported by paragraphs [0089] and [0090] of the specification, an electro-optical

device is described as comprising a display drive device of the described embodiments. Reconsideration and withdrawal of the objections are respectfully requested.

As to claims 6 and 13, the Examiner objects to the claims stating that they should have been written as “The electro-optical device comprising an electronic apparatus.” Applicants respectfully submit that the claims, which recite “An electronic apparatus comprising the electro-optical device according to ...”, are proper as originally submitted. As supported by paragraphs [0089] to [0092], electronic apparatuses are described as comprising the described electro-optical devices. Reconsideration and withdrawal of the objections are respectfully requested.

REJECTION UNDER 35 U.S.C. § 112

Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner states that “drive setup circuit” does not distinctly point to a particular circuit. This rejection is respectfully traversed.

As noted above with respect to the drawings and as supported by the specification, the control circuit, shown as 112 and 112a in Figures 2 and 7 respectively, functions as “drive setup means.” See, e.g., para. [0035] and [0040]. Thus, one of ordinary skill in the art would understand the claim which particularly points out and distinctly claims the subjection matter regarded as the invention. Reconsideration and withdrawal of the objection are respectfully requested.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Tamura (U.S. Pat. No. 7,098,902). With respect to claims 7, 11, and 14, the rejection is rendered moot by cancellation. With respect to claims 1-6, 8-10, 12-13, and 15, the rejection is respectfully traversed.

Claim 1 recites a display drive device comprising a drive circuit, a nonvolatile storage circuit, a control circuit, and a drive setup circuit. The drive circuit drives a display unit in which pixels are formed. The nonvolatile storage circuit storing screen information indicates a position of a pixel to be driven in the display unit. The control circuit reads the screen information from the nonvolatile storage circuit. The drive setup circuit sets a position based on the screen information read by the control circuit in the drive circuit. The drive setup circuit includes an address control circuit that controls a driving column of pixels and a reading address for display data. Tamura fails to teach or suggest the display drive device recited by claim 1.

In Tamura, a display drive circuit includes a driver-side control circuit that generates signals such as a grayscale control pulse, a polarity inversion signal, and a latch pulse, based on oscillation output from an oscillation circuit to control a page address control circuit and a PWM decoder circuit. Tamura, Col. 5, Lines 39-45. Tamura is silent, however, as to a drive setup circuit that sets a position based on screen information read by a control circuit in a drive circuit. Further, Tamura is likewise silent as to a drive setup circuit that includes an address control circuit that controls a driving column of pixels and a reading address for display data.

For these reasons, Tamura does not teach each and every element of claim 1. With regard to claims 2-6, Applicants note that claims 2-6 depend either directly or indirectly from claim 1, which defines over the prior art as discussed in detail above. Therefore, claim 2-6 also define over the prior art. Reconsideration and withdrawal of the rejections are respectfully requested.

Claim 8 recites a drive setup method of a display drive device including reading screen information from a nonvolatile storage circuit which stores the screen information indicating a position of a pixel to be driven, in a display unit in which pixels are formed. The method also includes setting a position based on the read screen information, driving the position set in the display unit, and controlling a driving column of pixels and a reading address for display data with an address control circuit. Similar limitations are recited by claim 1. For at least the above reasons, Tamura does not teach each and every element of claim 8.

Claim 9 recites a display drive device comprising a drive circuit driving a display unit in which pixels are formed, a nonvolatile storage circuit storing setup information to change a drive voltage to be supplied to the drive circuit, a control circuit reading the setup information from the nonvolatile storage circuit at predetermined intervals; a voltage supply circuit supplying a drive voltage based on the setup information read by the control circuit to the drive circuit, and a determination circuit that determines whether a drive voltage is supplied from the voltage supply circuit, and, if the determination is negative, re-starts the voltage supply circuit. Tamura fails to teach or suggest the display drive device recited by claim 9.

In Tamura, a contrast adjustment value is set by the issue of a command from the MPU. Tamura, Col. 8, Lines 17-19. When the command is issued, a computation circuit adds a correction value to a register to set a contrast adjustment value. Tamura, Col. 8, Lines 19-23. Tamura is silent, however, as to a determination circuit that determines whether a drive voltage is supplied from a voltage supply circuit, and that re-starts a voltage supply circuit if the determination is negative.

For these reasons, Tamura does not teach each and every element of claim 9. With regard to claims 10 and 12-13, Applicants note that claims 10 and 12-13 depend either directly or indirectly from claim 9, which defines over the prior art as discussed in detail above. Therefore, claims 10 and 12-13 also define over the prior art. Reconsideration and withdrawal of the rejections are respectfully requested.

Claim 15 recites a drive setup method of the display drive device comprising the steps of reading setup information from a nonvolatile storage circuit which stores the setup information to change and sets a drive voltage for driving a display unit in which pixels are formed at predetermined intervals, driving the display unit by a drive voltage based on the read setup information, determining whether the drive voltage is supplied from a voltage supply circuit; and re-starting the voltage supply circuit when the determination is negative. Similar limitations are recited by claim 9. For at least the above reasons, claim 15 defines over the prior art. Reconsideration and withdrawal of the rejection are respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: _____

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By: _____

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